

NATHANIEL WOODTHORPE

<https://github.com/d12>

<https://www.linkedin.com/in/nwoodthorpe/>

njwoodthorpe@gmail.com

Experience

BricksVR

Feb 2021 - Sept 2021

Founder & Lead Developer

- Managed a team of 7 to build and launch a multiplayer social experience for Oculus VR headsets.
- Developed the 3D VR application in Unity and C#, the API in Ruby, and the infrastructure on GCP.
- Built and maintained an active Discord community around the product with over 1,000 users.
- Worked with press and content creators to market the product resulting in thousands of paying customers.

Shopify

May 2020 - Feb 2021

Senior Software Developer

- Grew annual revenue by >\$10MM by leading a developer team to launch Shopify Capital in Great Britain.
- Worked closely with design, product, and legal to keep alignment and set sprint goals.
- Re-architected the Shopify Capital legal agreement system from the ground-up to ensure compliance.

GitHub

May 2019 - May 2020

Engineering Program Manager

- Led 6 developers to build GitHub Classroom, a tool used by over 100,000 students and 1,000's of schools.
- Worked directly with executive leadership on business goals and project resources.
- Allocated resources across engineering, design, and product initiatives to meet goals.
- Mentored and on-boarded engineers and engineering interns.

GitHub

May 2017 - May 2019

Software Engineer

- Developed and improved GraphQL/REST APIs, focusing on performance, usability, and compatibility.
- Worked on feature requests, performance improvements, and bug fixes on the core "repository" product.
- Interviewed candidates for dozens of engineering and engineering manager roles.
- Contributed to company engineering culture through technical talks and writeups.
- Mentored 6 engineering interns. Offered 1-1's, pairing sessions, and technical mentorship.

Projects

Super Mario Bros Genetic Learning AI

Feb 2020

- Built an AI that teaches itself how to play Super Mario from scratch as an exercise to learn about AI.
- The AI is a feed-forward neural network (FFNN) trained by a genetic algorithm built in Ruby & Java.

GraphQL Remote Loader, an Alternative to Schema Stitching

July 2017

- Performant, batched GraphQL queries from within the resolvers of a graphql-ruby API.
- Uses the graphql-batch gem to batch all requested data into a single outbound GraphQL query.
- Presented the project at a GraphQL meetup in Toronto.
- Open-source implementation is currently in production use by Shopify and other large companies.

Find more projects on my GitHub

Education

University of Waterloo Computer Science Co-op

2015-2017